

REMARKS

Re-examination and allowance of the present application is respectfully requested.

Initially, Applicants thank the Examiner for conducting a telephonic interview with Applicants' U.S. counsel, Steven Wegman, on June 22, 2011. During the course of the interview, Mr. Wegman explained to the Examiner the difference between a write period and a sustain period, and thus, that the assertion in the Office Action that a write period is similar to a sustain period is erroneous. In addition, proposed amendments to claim 1, which are presented in the current Submission, were discussed. As a result of the interview, the Examiner indicated that the proposed claim amendments overcome the rejections in the Office Action. However, the Examiner indicated that he would have to conduct a further search. In this regard, the Examiner stated that should the search turn up a new reference, he would contact Applicants' counsel to discuss further amendments to the claims before issuing another Action. In addition, the Examiner noted that because the present Office Action is final, Applicants should submit the claim amendments and arguments as a Submission that accompanies a Request for Continued Examination (RCE), and that if he issued a new rejection, he would not make the Office Action final. Applicants thank the Examiner for these indications.

The outstanding Office Action rejects claims 1, 2, 5-7, 13, 14, 16 and 18-23 under 35 U.S.C. §103(a) as being unpatentable over KUBOTA et al. (U.S. Patent No. 6,288,699) in view of YAMAGISHI et al. (U.S. Patent Application Publication No. 2004/0012580). Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over KUBOTA et al. in view of YAMAGISHI et al. and further in view of HAINES (U.S. Patent No. 4,697,107). Claims 4, 8, 10 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over KUBOTA et al. in view of YAMAGISHI et al. and further in view of Saito (U.S. Patent Application Publication

No. 2001/0054924). Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over KUBOTA et al. in view of YAMAGISHI et al. and further in view of Saito and TAKUWA (U.S. Patent No. 5,793,363).

Applicants respectfully submit that the disclosures of the applied references, whether considered individually or whether considered in any proper combination, are inadequate and insufficient to disclose, teach, suggest, or even to render unpatentable the combination of features recited in Applicants' pending claims. Applicants additionally submit that even if the references are combined as proposed by the Examiner, the features defining Applicants' invention would not be disclosed therein.

Applicants' invention is directed to a plasma display driven by a subfield system. In rejecting the pending claims, the Office Action acknowledges that KUBOTA teaches using an LCD display, and not a plasma display, but asserts that a write period is similar to a sustain period. The Office Action further asserts that paragraph [0015] of YAMAGISHI et al. specifies that the invention disclosed therein may be implemented in a plasma display. See, for example, page 5, lines 2-3 and 9-16 of the Detailed Action portion of the Office Action. Applicants respectfully submit that such assertions are incorrect. In particular, Applicants submit that a write period is completely different from a sustain period.

Fig. 4 of YAMAGISHI et al. discloses that when reset signal "RESET" rises to a high level at a time when a display device is powered ON, a test mode signal "TestMODE" rises to a high level, and a test mode period starts. Paragraph [0107] of YAMAGISHI et al. specifies that a clock delay time is adjusted during a period in which the test mode signal "TestMODE" is at a high level. Paragraph [0110] of YAMAGISHI et al. specifies that when the test mode signal "TestMODE" is at a low level, clock selector circuit 13 causes the display panel to perform a

normal display operation, and when the test mode signal “TestMODE” is a high level, the clock selector circuit 13 assists delay control for the adjustment of clock timing.

Accordingly, Applicants submit that in YAMAGISHI et al., the display operation is not performed during the period in which the delay control for the adjustment of clock timing is performed.

On the other hand, Applicants’ claimed plasma display enables the phase of a clock signal provided to the data driver to be adjusted in the sustain period of each subfield while the display of an image is performed. Applicants submit that the prior art combination suggested by the Examiner would not be able to do this.

In Applicants’ claimed plasma display, a drive pulse (i.e., write pulse) is applied to a selected data electrode and each scan electrode in the write period of each subfield, so that an address discharge is generated between the data electrode and the scan electrode of a selected discharge cell. This selects a discharge cell to be illuminated (lit). During the sustain period of each subfield, a sustain pulse is alternately applied to a plurality of scan electrodes and a plurality of sustain electrodes, so that a sustain discharge is generated between the scan electrode and the sustain electrode of the discharge cell where the address discharge was generated (i.e., the selected discharge cell). See, for example, page 18, line 11 through page 20, line 12 and Fig. 2 of Applicants’ filed application.

According to Applicants’ claimed invention, the data electrodes are irrelevant to the sustain discharge in the sustain period of each subfield. As a result, Applicants submit that the assertion in the Office Action that a write period is similar to a sustain period is erroneous. In the presently claimed invention, a test signal can be provided to the data driver to apply a drive pulse to each data electrode without affecting the lighting or non-lighting of each discharge cell in the sustain period of each subfield. Thus, the phase of a clock signal can be adjusted during a

period in which an image is displayed by the plurality of discharge cells. That is, in the presently claimed invention, when a three-electrode plasma display is driven by a subfield system, utilizing a sustain period makes it possible to adjust the phase of the clock signal while an image is being displayed.

Applicants submit that this is not possible with either KUBOTA et al., which discloses only two electrodes; i.e., data signal lines SL_1 to SL_n , and scanning signal lines GL_1 to GL_m , as disclosed at, for example, Figs. 1 and 2 and column 7, lines 27-42 of KUBOTA et al. Similarly, YAMAGISHI et al. merely discloses (see, for example, Fig. 8 and paragraph [0156]) a two electrode panel; i.e., video signal lines (source line DL) and scan signal lines (gate line GL). Applicants submit that the construction disclosed in each applied reference makes it impossible to perform a delay control to adjust a clock timing while also performing a display operation.

As discussed above, the Office Action asserts that paragraph [0015] of YAMAGISHI et al. can be implemented in a plasma display. Applicants submit that if one attempted to do this, a normal operation would be performed when the test mode signal "TestMODE" is at a low level, and the delay control for adjustment of the clock timing would be performed when the test mode signal "TestMODE" is at a high level. In this regard, Applicants submit that YAMAGISHI et al. completely fails to disclose or suggest that a three electrode plasma display is driven by a subfield system, or that utilizing a sustain period makes it possible to adjust the phase of a clock signal while displaying an image. Thus, Applicants submit that unlike the presently claimed invention, if the teachings of YAMAGISHI et al. is combined with the teachings of KUBOTA et al., a display operation and a delay control for adjustment of a clock signal would not be performed at the same time.

In view of the above, Applicants submit that independent claim 1 is allowable over the applied art of record, and respectfully requests such an indication in the next official

communication. Applicants further submit that the various dependent claims are allowable over the applied prior art combination for at least the same reasons as is applicable to claim 1, and additionally, for the combination of features recited in each dependent claim. Accordingly, the Examiner is also respectfully requested to confirm the allowability of the dependent claims in the next official communication.

SUMMARY AND CONCLUSION

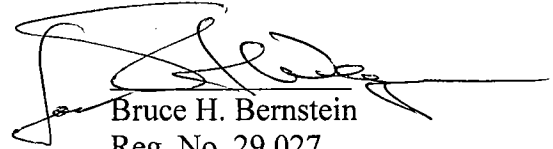
In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Any amendments to the claims which have been made in this response, and which have not been specifically noted to overcome a rejection based on the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
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